START

May 8, 1990 Final

Meeting Minutes Transmittal/Approval

HWVP Unit Managers Meeting: General Topics

March 7, 1990

Vitro Building, Room 206

Richland, Wa.



Appvl. Clark, Unit Manager, DOE-RL Date: 5/15/90
Appvl. M. Cross, Vitrification Project Office, DOE RL
Appvl.: Date: 5/15/90 Date: 5/15/90
Appvl.: Date 5/5/90 Mike Gordon, Unit Manager, Washington State Department of Ecology
PURPOSE: Discuss NOD comments and the permitting schedules for the HWVP Part B permit application. Deliver presentation on HWVP Technology Overview.
Meeting Minutes are attached. Minutes are comprised of the following: Attachment #1 - Meeting Summary/Summary of Commitments and Agreements Attachment #2 - Attendance List Attachment #3 - Meeting Agenda Attachment #4 - Handouts for Hanford Waste Vitrification Plant Technology Presentation Attachment #5 - Commitments/Agreements Status List
Distribution: M. J. Anthony DOE (A6-95) J. D. Bauer WHC (B3-15) L. E. Borneman WHC (B2-19) E. A. Bracken DOE (A6-95) L. C. Brown WHC (H4-51) J. W. Cammann WHC (H4-54) R. M. Carosino DOE (A4-52) G. D. Carpenter WHC (H4-15) C. DeFigh-Price WHC (B2-20) M. L. Hoewing WHC (B3-06) R. D. Izatt DOE (A6-95) R. D. Izatt DOE (A6-95) R. J. Landon WHC (R2-29) R. J. Landon WHC (B2-19) R. E. Lerch WHC (B2-35) H. E. McGuire WHC (B2-35) L. L. Powers WHC (B2-35) S. M. Price WHC (H4-57) F. A. Ruck III WHC (H4-57)

(Distribution continued on next page)

HWVP UNIT MANAGERS MEETING March 7, 1990

Distribution (continued)

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C. K.	Disibio	WHC (B3-02)	S. A. Wiegman	WHC (B2-	19)
W. T.	Dixon	WHC (B2-35)	EDMC	(H4-	51)
K.R.	Fecht	WHC (H4-56)	S.A. Benfer	SWEC (A4-	35)
C. J.	Geier	WHC (H4-57)	P. Felise	WHC (G6-	16)
G.	Norman	DOE (A5-51)10	C. E. Clark	DOE (A6-	95)
J. H.	LaRue	WHC (G6-16)	W. C. Miller	WHC (G6-6	
J. M.	Colby	WHC (H5-07)	S. L. Cross	DOE (A5-	51)
D. L.	Parker	WHC (H4-57)		1	0

ADMINISTRATIVE RECORD (Hanford Waste Vitrification Plant) [Care of Susan Wray, WHC (H4-51C)]

Attachment 1

Meeting Summary/Summary of Commitments and Agreements

Discussions were held on the following subjects:

- A. <u>Permit Schedule (DOE/WHC)</u>
- 1. The Washington State Department of Ecology (Ecology) was informed of DOE's intention to notify them that a compression in the permitting schedule was needed. A letter containing a request for compressing the permitting schedule will be forthcoming from DOE/WHC. It should be sent to Ecology within 3-4 weeks, prior to the next unit managers meeting. DOE-RL wants to have the RCRA and Clean Air Act (CAA) Permits by the end of March 1991, for presentation to DOE-HQ for Key Decision Point #3 review. Construction approval is expected to be contingent on having these permits approved. The HWVP schedule calls for construction to begin in July 1991.
- 2. Ecology asked about the need for a Safety Analysis Report (SAR) prior to construction. A Preliminary Safety Analysis Report (PSAR) will need to be approved prior to the start of construction. The draft PSAR will be out in July 1991. It will be based on the Reference Conceptual Design. The FSAR will be completed before plant start up.
- 3. Ecology suggested that the letter needs to outline how DOE/WHC will provide necessary design documents to support an earlier approval schedule. A revision to the NOD schedules was suggested. Mike Gordon suggested that the second NOD might be delayed until more design information is available, and a third NOD might then be unnecessary.
- Action HWVP 1: In 3 to 4 weeks DOE/WHC will send Ecology a letter outlining a revised schedule to meet the March date. This should be accomplished by the next Unit Managers' meeting on April 9, 1990. Further discussion will be scheduled for this meeting.

B. NOD Status (Ecology)

The discussion of NOD comments and responses was lead by Mike Gordon.

Item #24

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Ecology

Is Mercury present in the waste?

Discussion

Mercury is not in the NCAW tank; it may be in the HWVP feed tank. One analysis detected a trace of mercury. DOE/WHC is currently trying to establish if mercury is present and in what quantity. The

mercury may be picked up by the NCAW pretreatment feed through interaction with the sludge in the feed tank. Ecology requested copies of analytical reports covering the issue.

Item #29

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Ecology

DOE/WHC Can not delete the WAC-173-303-084 reference from the permit application. If it is done this comment will appear on the next NOD.

Discussion

Ecology suggest that the language in the permit application be changed to indicate that due to the waste form, the listed waste is not considered hazardous.

Discussion on Clean Air Act Permit

WHC/DOE will submit the CAA permit application under a separate cover from the Part B permit application. Ecology will issue the CAA permit as part of the RCRA permit. The CAA permit may be issued as an appendix to the RCRA permit. Combining the two permits allows for a unified approach to evaluation of impacts on soil, water and air. Additionally, it will allow for one comment period instead of two as would be required if considering them separately.

DOE-RL requested information on how the two permits would be handled administratively. Ecology indicated that the permits would be handled independently by the responsible sections within Ecology. However, the RCRA permitting group will have to be satisfied that the air emissions control technology meets BACT requirements as required by the Dangerous Waste Regulations. Terry Hussman will have responsibility for resolution of disagreements between RCRA and Air permitting sections.

Item #37 Ecology

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DOE/WHC's response to this NOD comment item can be interpreted as implying that documentation of deviations from SW-846 methods for mixed waste analysis and creation of a manual will constitute approval. Ecology understood that DOE & EPA agreed in previous discussions that new SW-846 mixed waste analysis methods would be written or approved by EPA, or that petitions for approval of major modifications would be made by DOE/WHC. Ecology also emphasized that, unlike the SST sample program, the HWVP sampling program had sufficient time to go through a formal approval process.

Discussion

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EPA and DOE are currently meeting on SW-846 mixed waste analysis. Ecology is willing to accept modifications in SW-846 techniques like sample size reduction for EP toxicity test, but major changes in analytical procedures would require submittal of a petition and approval by EPA.

DOE/WHC will check with the laboratories who have been working with EPA on acceptable methods for mixed waste analysis.

Ecology indicated that there are continuing concerns about WHC's responses on issues where DOE/WHC and Ecology positions were far apart, and that they would like to discuss them later in a smaller group. No arrangements for such a discussion were made at this time. Ecology desires to review tank integrity assessment when procurement takes place in the 1991, 1992 time frame.

C. HANFORD WASTE VITRIFICATION PLANT PROJECT TECHNOLOGY OVERVIEW

Presented by Tom Weber (WHC), view graphs located in Appendix #3

Ecology questions during the presentation focused on waste qualification and incorporating alternative technologies as they were identified in the technology exchange program.

DOE-RL clarified that the 100 kg/hr HWVP feed rate was a nominal rate, and that the permit for HWVP should probably be written so that higher actual feed rates could be accommodated. Ecology acknowledged that this was a good point and should be considered in both the RCRA and CAA permit applications.

D. INTEGRATED DESIGN/CONSTRUCTION SCHEDULE DISCUSSION

Ecology has reviewed the January 1988 proposed HWVP schedule submitted to them at the January 31, 1990 meeting, and developed a permitting schedule based on this schedule. Based on the 1988 schedule, Ecology would issue the facility permit in phases to accommodate the design and construction schedule. The following permitting phases were proposed by Ecology based on the January 1988 schedule:

MODULES
Site Preparation
Buildings, external
Plant, internal
Cold start
Hot start

DATE OF ISSUE July 1991 August 1992 Marc 1994 1997 1999. The Site Preparation permit will cover the following design and procurement packages:

- C-1 Security Fence, Lighting and Roads
- C-4 Site Utilities C-5 Site Preparation
- C-6 Construction Support Facilities
- C-28 Concrete Batch Plant
- P-19 Unit Substations

The Buildings, external, permit will cover the following design and procurement packages:

- C-7 Vito Building Foundations
- C-8 Vito Building Shell
- C-13 Sand Filter
- C-14 Fan House

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- C-15 Switch Gear/Gen. Bld.
- P-1 Pipe Modules
- P-2 Shield Windows
- P-3 Canyon Crane & Controls
- P-13 13.8 Kv Switch Gear
- P-15 Health Protection Monitoring Equipment
- P-20 HEPA Filter Housing
- P-21 Electric Load Center
- P-27 Motor Control Center
- P-28 Air Handling Units & Fans
- P-29 HEPA Filters

For the first module, Site Preparation, Ecology will need to see final drawings and performance specifications before issuing the permit. Ecology stated that no site work can begin until the permit has been issued.

DOE/WHC pointed out that the January 1988 schedule is outdated. Ecology wants to see a revised schedule as soon as possible. DOE/WHC will have a revised HWVP Baseline Schedule within 2-3 weeks. It will be submitted to DOE for review, and will then be sent to Ecology.

FLUOR will be preparing performance specifications for site preparation work. The Preliminary Design Phase for the HWVP will be done by September 1990. Detailed designs addressing seismic and dynamic loading, footings, foundations, etc., will not begin until then.

WHC/DOE wants the first permit issued by March 1991 so that it can be presented to DOE-HQ for Key Decision #3. Ecology emphasized that this schedule would be accommodated if at all possible, but that they would have to have final design drawings and work packages related to site preparation 3 - 6 months prior to issuing a permit. Without changes in FLUOR's schedule for completion of preliminary and final site preparation packages, this March target date could not be met.

Ecology emphasized that no site preparation work could be undertaken without the issuance of the permits including the CAA permit. Ecology will need a minimum of 3 months to review the final design packages and receive public comment before the first part of the permit is drafted and issued. Ecology also reiterated that they need to be in on the ground floor for review so that delays in scheduling do not occur.

DOE/WHC stated that FLUOR's schedule is set to start ramping up with a preliminary design package (50-70% completion) submitted in September-December 1990. The ramp up of FLUOR's personnel is controlled by DOE budget, which is at present thought to be inadequate to fund acceleration of the final site preparation work packages in 1990.

ACTION HWVP #2: Bill Miller, WHC, will review the schedule for issuing preliminary and final packages related to site preparation to see if priorities can be shifted to accommodate permitting requirements.

ACTION HWVP #3: Cliff Clark, DOE, will discuss permitting schedule requirements for HWVP with the DOE FLUOR contracting representative.

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Discussion then turned to the depth of review of the design packages. Ecology wants to review all of the design packages. Bill Miller, WHC, asked whether Ecology realizes the amount of material, manpower, and cost required for such a review. Ecology does recognize the requirements and will employ Brown & Caldwell for this purpose. Bill Miller suggested that the Ecology contractor should be part of the on-site review process at FLUOR's office in Irvine, CA to expedite the review and approval process. Ecology will also want to review any design changes made after permit approval.

ACTION HWVP #4: Cliff Clark will discuss the appropriateness of such an onsite review by Ecology representatives with DOE. He will check with FLOUR contracting officer in DOE and with other DOE representatives.

The public review process for permitting the HWVP was also discussed. This process necessitates that a revised Part B and CAA Permits be submitted to Ecology by May 1,1991 in order to allow for a 45 day public review and comment period prior to issuing final permit on July 1, 1991. Ecology also clarified that both the permit and any design or work specifications on which the permitting decision had been based must be available for public review. Legitimate business confidential documents would be exempted.

The issue of clearing documents for public review and business confidentiality is already being worked within DOE/WHC, based on previous discussions with Ecology, DOE, EPA and WHC attorneys.

HWVP UNIT MANAGERS MEETING March 7, 1990

DOE-RL asked whether significant public comment was anticipated. Ecology said they expected negative comments on the permitting process, since the approach was unusual. A public hearing would be scheduled for the last day of the comment period, if anyone requests it.

E. Closeout

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The next HWVP RCRA Unit Managers Meeting will be scheduled for 8:30 A.M. on April 9, 1990 in Richland. The Revised HWVP Baseline Schedule will be distributed and discussed at this meeting.

ACTION HWVP #5: Joe LaRue, WHC, will arrange for a tour of the PNL Technology Development facilities for the afternoon of April 9, 1990.

Attachment #2 Attendance List

Morning 9:30-12:30

Name	Organization	<u>Phone</u>
Sue Price	WHC/ED	509-376-1653
Joe LaRue	WHC	509-376-7517
Julie Colby	WHC	509-376-4756
Dan Duncan	DOE-RL	509-376-9333
Paul Felise	WHC	509-376-0494
Mike Gasser	SWEC	509-376-9830
Peggy Baker	SWEC	509-376-9830
Cliff Clark	DOE-RL ERD	509-376-8488
Mike Gordon	WDOE	206-438-7024
Dan Parker	WHC/ED	509-376-9739
Sherri Cross	DOE/VPO	509-376-9623
Bill Miller	WHC	509-376-2947
Gar Norman	DOE/VPO	509-376-8270

Afternoon 1:30-3:30

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Name	Organization	Phone
Sue Price	WHC/ED	509-376-1653
Joe LaRue	WHC	509-376-7517
Paul Felise	WHC	509-376-0494
Mike Gasser	SWEC	509-376-9830
Peggy Baker	SWEC	509-376-9830
Cliff Clark	DOE-RL ERD	509-376-8488
Mike Gordon	WDOE	206-438-7024
Dan Parker	WHC/ED	509-376-9739
Sherri Cross	DOE/VPO	509-376-9623
Bill Miller	WHC	509-376-2947
Toby Michelena	WDOE	208-438-7016
Megan Lerchen	WDOE	208-438-3089
Carol Geier	WHC/ED	509-376-2237

ATTACHMENT #3

AGENDA

UNIT MANAGES' MEETING

March 7, 1990

Richland, WA

9:30 - 10:30	0	Hanford Waste Vitrification Plant Part B Permit Application Items
		- Permitting Schedule (DOE/WHC)
		- NOD status (Ecology)
10:30 - 12:00 Presentation	0	Hanford Waste Vitrification Plant Technology
		- HWVP Technology Plan (DOE/WHC)
12:00 - 1:00	o	Lunch
1:00 - 3:00	0	Integrated Design/Construction Schedule Discussion
3:00 - 3:30	0	Close-out

Unit Manger Meeting Will be held in the Vitro Building, Room 206.

Hanford Waste Vitrification Plant Project Technology Overview

E. T. Weber, Manager Hanford Waste Vitrification Plant Applied Technology

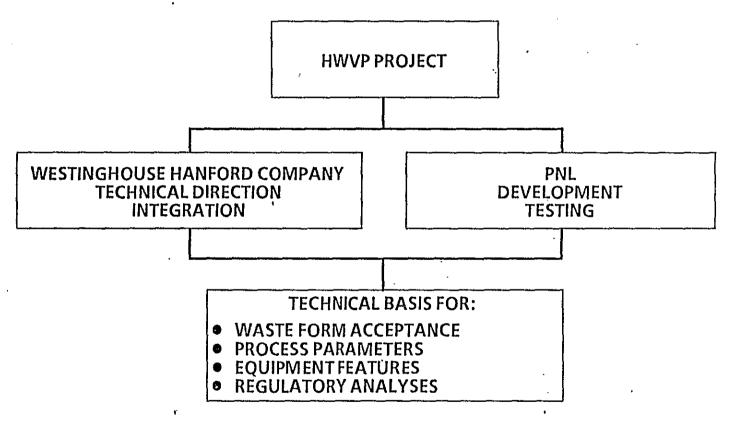
Presented to the Washington State Department of Ecology

March 7, 1990

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HWVP Project Technology Structure



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Technology Tasks and Scope

- Technology exchanges (Westinghouse Hanford)
 - Planning and implementation of technical exchanges with the Defense Waste Processing Facility (DWPF), West Valley Demonstration Project (WVDP), and foreign vitrification programs
- Defense Waste Management Division (DWMD) interface (Westinghouse Hanford)
 - Technical evaluation of waste compositions and pretreatment processing, feed specifications, interface and issues resolution, and waste loading assessments

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Technology Tasks and Scope (cont.)

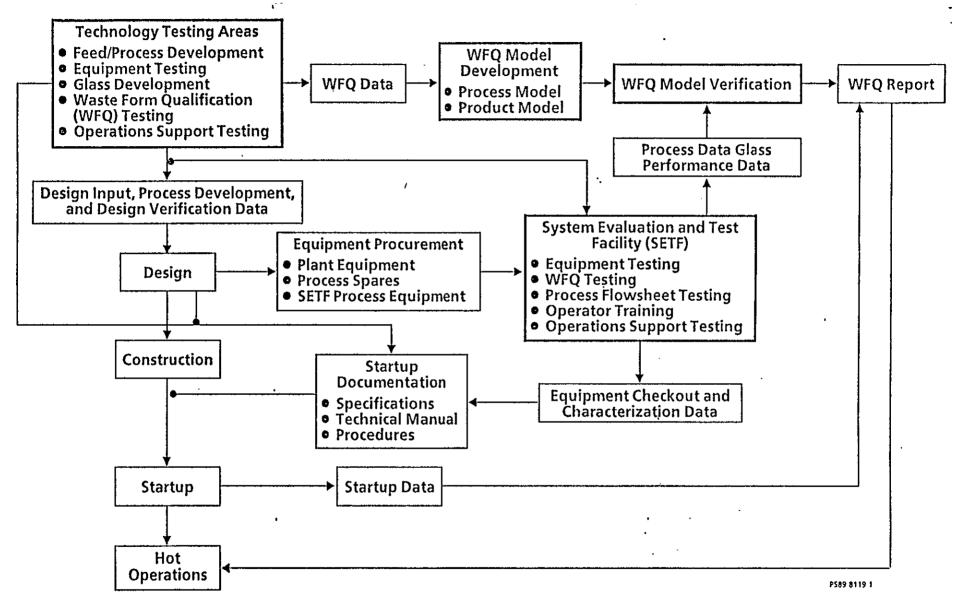
- Process development (PNL)
 - Feed and glass processing technology laboratoryand pilot-scale tests
- Equipment and adaptation testing (PNL)
 - Process equipment feature evaluation; design, procurement, installation of pilot-scale process equipment for testing
- Waste form qualification (WFQ) technology (PNL)
 - Process and product model development; radioactive waste feed processing, glass preparation, and characterization

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Technology Tasks and Scope (cont.)

- Analysis and integration (Westinghouse Hanford)
 - Applied technology planning, resource management, technical direction, reviews, data integration, and engineering interfaces
- WFQ compliance documentation (Westinghouse Hanford)
 - Compliance approach and planning, technical direction, compliance interfaces, and compliance documentation

Hanford Waste Vitrification Plant Project Technology/Testing Support Relationships



HWVP Technical Exchange Plan

- Formal agreement with DWPF
- Promotes the timely transfer of technology, design, and Project experience (testing, estimating, construction, and operation) from DWPF and WVDP
- Identifies primary mechanisms for transfer--meetings, tours, documents, assignments, training, and reviews
- Establishes principal contacts at both sites
- Defines meeting documentation requirements
- Includes Technical Exchanges with foreign programs

Technology Development Activities

Major Focus

- Evaluate melter features vs performance capabilities to provide reliable processing of Hanford Site wastes
- Perform tests to validate feasibility and resolve design issues

Technology Development Activities (cont.)

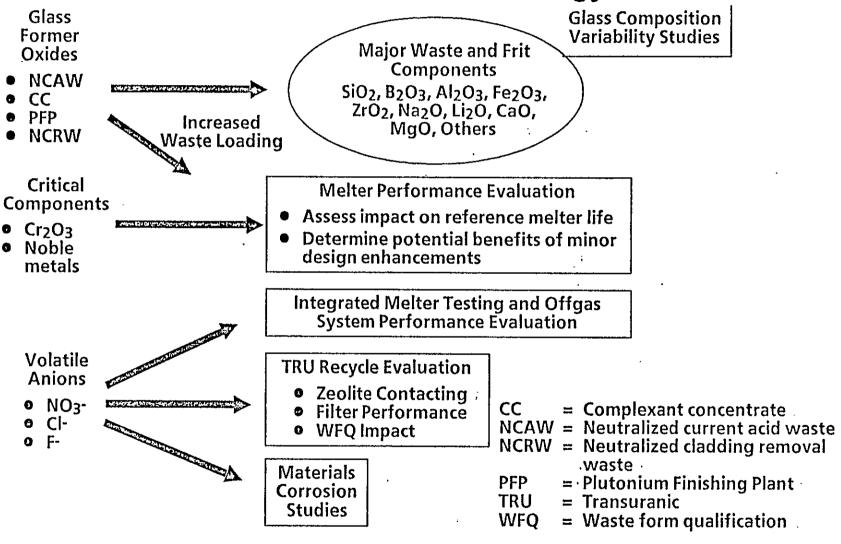
Major Focus (cont.)

- Conduct laboratory-, bench-, and pilot-scale integrated melter testing to verify feed preparation, melter and offgas system design/operation
 - Verify established processing limits for feed and glass compositions
 - Provide product and process model data for WFQ
 - Correlate radioactive testing results with data from simulated waste
- Test results to date indicate successful adaptation of selected DWPF process systems for vitrification of Hanford wastes

Technology Development Activities (cont.)

- Define and qualify an acceptable glass composition envelope for vitrification of Hanford Site waste
 - Unique Hanford waste streams
 - Neutralized current acid waste (NCAW)
 - Neutralized cladding removal waste
 - Plutonium Finishing Plant waste
 - Complexant concentrate
 - Determine solubility limits for major components

Technology Approach Based on Waste Characteristics Waste Characterization/Technology Interface



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Technology – DWMD Interfaces

- Evaluate DWIVID strategies for waste pretreatment and disposal
- Provide feed specifications and characterization requirements to DWIVID for waste pretreatment development/design and waste tank core sample evaluation
- Determine feed source terms for HWVP design based on pretreatment flowsheets
- Coordinate planning for transfer of B Plant pretreated NCAW to hot cells for radioactive waste bench-scale testing

Nominal Pretreated Feed Compositions

Nonvolatile	Wt% of Total Nonvolatile Oxides in HWVP Feed Stream			
Oxide	NCAW	CC	PFP*	NCRW
Al ₂ O ₃	9.0	7.1	15.1	26.0
CaO	0.3	1.1	9.0	0.3
CdO	3.0			
Cr ₂ O ₃	0.5	2.7	2.0	2.0
CuO	0.6			
F	1.2	2.3	1.8	4.3
Fe ₂ O ₃	28.2	17.2	37.0	0.4
(La, Nd) ₂ O ₃	2.9	2.1		0.5
MgO	0.2	3.5	8.1	0.1
MnO ₂	0.6	3.5	5.1	
MoO ₃	1.2			
Na ₂ O/K ₂ O	17.6	15.7	17.1	14.0
NiO	2.3			1
P ₂ O ₅	0.9			- 1
Noble metals	1.0	p=0 take *		0.2
\$03	0.7	0.7	2.3	
SiO ₂	4.0	43.7		6.3
U ₃ O ₈	4.7	'		1.6
ZrO ₂	15.1			42.0
Total feed oxides	94.0	99.6	97.5	98.0
Total amount of oxides (kg)	2.0 E+05	2.4 E+05	2.5 E + 04	5.6 E + 03

*Plutonium Finishing Plant composition assumes 2.0 wt% Cr₂O₃.

CC = Complexant concentrate

HWVP = Hanford Waste Vitrification Plant

NCAW = Neutralized current acid waste

NCRW = Neutralized cladding removal waste

PFP = Plutonium Finishing Plant

HWVP Waste Form Development

Approach

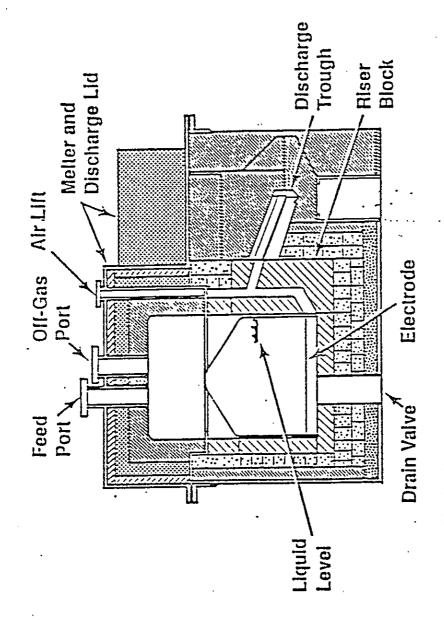
- Waste characterization
- Reference glass
 - Process runs
 - Properties
- © Composition variability study (CVS)
- Radioactive glass characterization
- Model development

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Glass Testing

- Reference glass
 - Basis for simulant process runs
 - Laboratory testing of properties
- O CVS
 - Defines the envelope of acceptable compositions
 - CVS measurements
 - Melt viscosity
 - Phase formations
 - Ourability
 - Thermal conductivity
 - Electrical conductivity (resistivity)
 - Liquidus temperature
 - Transition temperature

Pilot-Scale Ceramic Melter



ZZZZ K-3 Refractory

Zirmul Refractory

Ramming Mix

Alfrax 57 Castable Refractory

™ Duraboard Insulation

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1988 Pilot-Scale Test Results, PSCM-23

Run Summary

- 16 days of feeding followed by idling test
- Feed processed: approximately 15,000 L (500 g/L)
- Melter feeding online efficiency: greater than 98%
- Glass produced: approximately 7,450 kg
- Test verified performance of key offgas system components

Pilot-scale ceramic melter (PSCIVI) is 28% of full-scale melter capacity

Reference Glass

- HW-39-4
- Based on reference feed
- Based on reference frit
- Based on 25 wt% waste (feed) loading
- Reference feed composition based on knowledge of B Plant flowsheet and waste samples

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Reference Frit and Glass Composition (HW-39-4) (sheet 1 of 2)

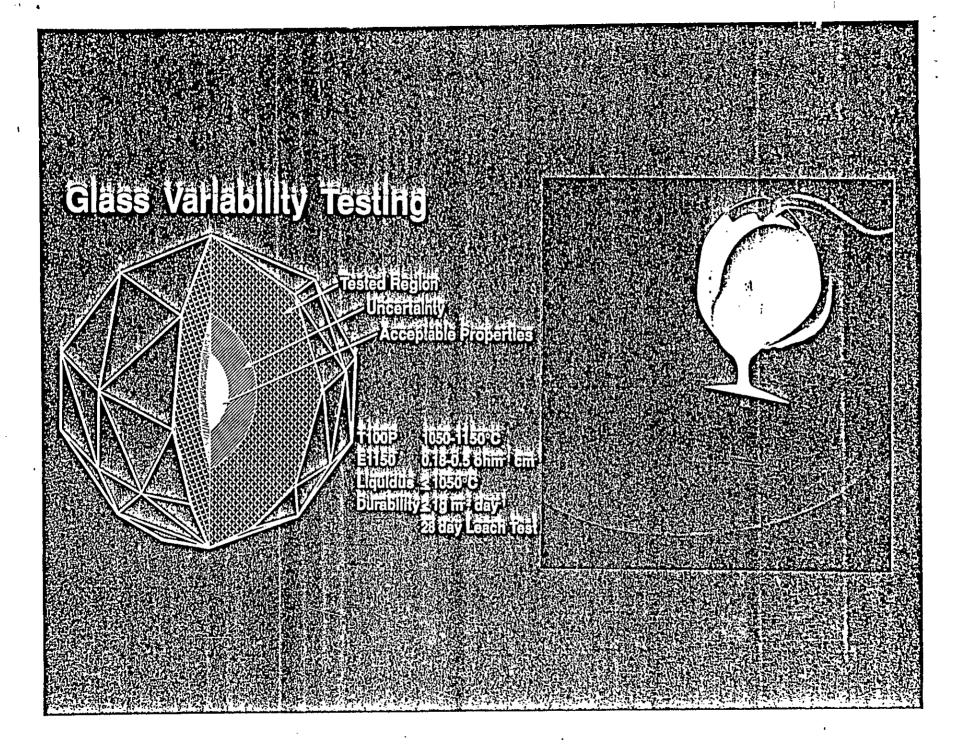
Oxide	Reference frit composition (wt%)	Reference glass composition (wt%)
SiO ₂	70.00	53.53
B ₂ O ₃	14.00	10.53
Na ₂ O	9.00	11.25
Li ₂ O	5.00	3.75
CaO	1.00	0.83
MgO	1.00	0.84
Fe ₂ O ₃ ,		7.19
ZrO		3.85
Al ₂ O ₃		2.31
NiO		0.59
La ₂ O ₃		0.64
Nd ₂ O ₃		1.27
SO ₃		0.46
F	e-e e	0.31
MoO ₃	200 (00)	0.31
U ₃ O ₈	Prof. Series	*

^{*}Substitute Nd

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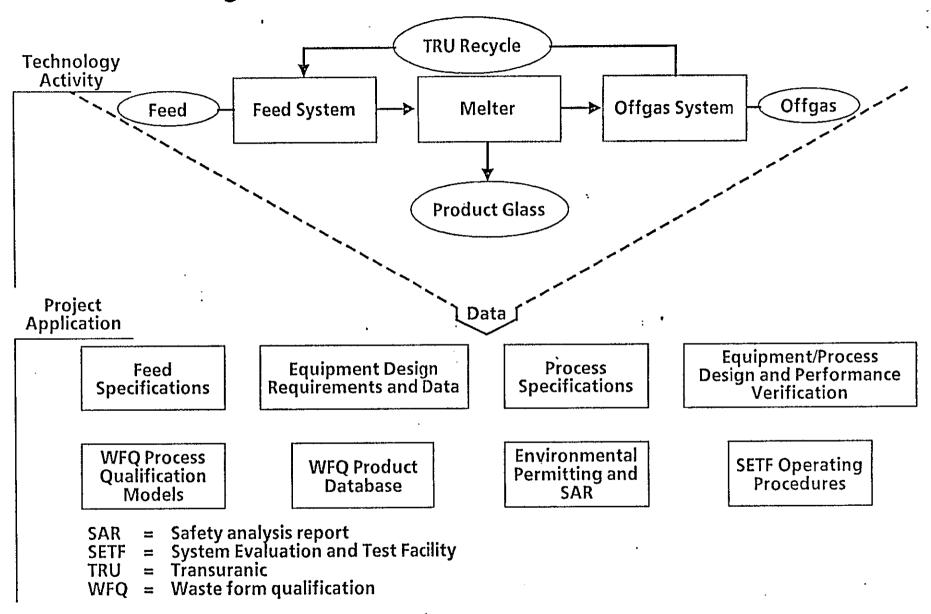
Reference Frit and Glass Composition (HVV-39-4) (sheet 2 of 2)

Oxide	Reference frit composition (wt%)	Reference glass composition (wt%)
CeO ₂		0.15
Cs ₂ O		0.15
CuO		0.15
MnO ₂		0.15
RuO ₂		0.15
Cr ₂ O ₃		0.13
BaO		0.10
Pr ₆ O ₁₁		0.10
SrO		0.10
Tc ₂ O ₇		
PdO	,	0.05
Rb ₂ O		, 0.05
Rh ₂ O ₃		0.05
Sm ₂ O ₃		0.05
Y ₂ O ₃		0.05
CdO		0.77
P ₂ O ₅		0.10



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Integrated Pilot Process Equipment Testing



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Radioactive Glass Production and Testing

Laboratory-Scale

- Waste tank core samples (NCAW) prepared as feed
- Formating and crucible melting in progress
- Characterization/properties data by September 1990
- Other waste types to follow

Bench-Scale

- I/50-scale feed system and melter in design
- 400-kg waste feed transfers in planning
- Testing with nonradioactive feed starts in 1992
- Processing of radioactive feed starts in 1993

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HWVP Approach to WFQ

- Interpret DWPF waste acceptance preliminary specifications (WAPS) for HWVP-specific conditions
- Formulate a glass product and establish a process specific to Hanford Site wastes
- Develop the product and process to show WAPS compliance
- Design the plant to incorporate DWPF lessons learned and Hanford Site-specific concerns
- Analyze and test the product and process to verify WAPS compliance
- Operate the HWVP in accordance with the verified process

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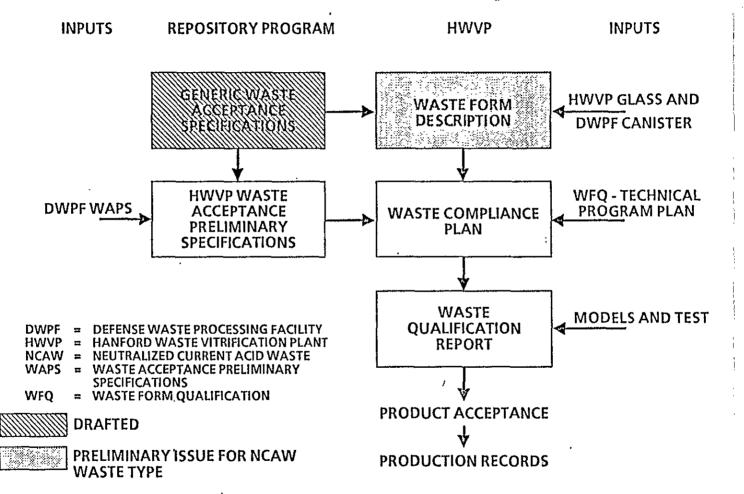
Required WFQ Documentation

- Five WFQ documents tie HWVP to the repository program
 - HWVP-specific WAPS
 - Waste Form and Canister Description
 - Defines the physical and chemical characteristics of the waste form and canister
 - Waste Compliance Plan
 - Defines the strategy and activities for obtaining compliance with the waste acceptance specifications

Required WFQ Documentation (cont.)

- Waste Qualification Report
 - Presents the data and controls for compliance with the waste acceptance specifications
- Production records
 - Show that each canister of vitrified waste meets the waste acceptance specifications

HWVP Outline of Waste Acceptance Process



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WFQ Compliance Requirements

OGR/B-8, "DWPF Waste Acceptance Preliminary Specifications"

Waste Acceptance Specifications	Impact/Activity HWVP must submit data specific to the site waste form Chemical composition Radionuclide composition Radionuclide release Chemical and phase stability	
Waste Form (1.1 - 1.4)		
Canister (2.1 - 2.3)	DWPF design directly applicable Material Fabrication and closure Label	

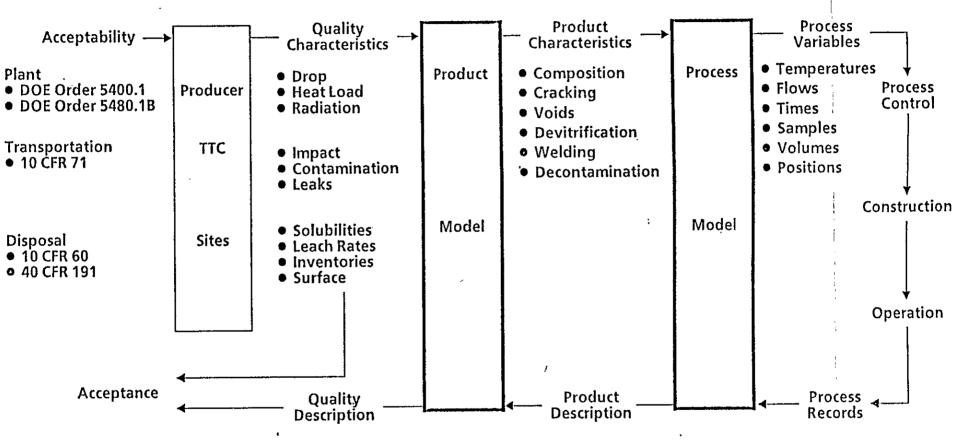
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WFQ Compliance Requirements

OGR/B-8, "DWPF Waste Acceptance Preliminary Specifications" (cont.)

Waste Acceptance Specifications	Impact/Activity
Canistered Waste Form (3.1 - 3.13)	Many DWPF compliance activities are directly applicable; others must be evaluated
Quality Assurance (4.0)	Establish site-specific quality assurance program that meets OGR/B-14

Relationship of the Product and Process Model to the WFQ Process



TTC = Transportation Technology Center

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WFQ Models

Process Model

- Predicts the glass composition and its uncertainty based on slurry samples
 - Incorporates mass balance algorithms and analysis of variance for samples (slurry and glass), volume measurements, melter mixing, and laboratory analyses

Product Models

- Predict the glass product performance and the uncertainty based on glass composition
 - Incorporate leach, cracking, and devitrification algorithms and analysis of variance for sampling, testing, and laboratory analyses

Summary

- Planned HWVP technology activities support scheduled design and startup
- As much as possible, HWVP uses DWPF and WVDP technology, and foreign program experience
- Technology activities address differences between SRS and Hanford Site wastes
- Applied Technology Plan and schedule support Tri-Party Agreement

Attachment #5

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Commitments/Agreements Status List

Item	Action	Status
HWVP 1	In 3 to 4 weeks DOE/WHC will send Ecology a letter outlining revised schedule to meet the March date. This should be accomplished by the next Unit Managers' meeting on April 9, 1990. Further discussion will be scheduled for this meeting.	OPEN
HWVP 2	Bill Miller, WHC, will review the schedule for issuing preliminary and final packages related to site preparation to see if priorities can be shifted to accommodate permitting requirements.	OPEN
HWVP 3	Cliff Clark, DOE, will discuss permitting schedule requirements for HWVP with the DOE FLUOR contracting representative.	OPEN
HWVP 4	Cliff Clark will discuss the appropriateness of such an onsite review by Ecology representatives with DOE. He will check with FLOUR contracting officer in DOE and with other DOE representatives.	OPEN
HWVP 5	Joe LaRue, WHC, will arrange for a tour of the PNL Technology Development facilities for the afternoon of April 9, 1990.	OPEN